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BEFORE THE

Federal Communications Commission

Federal Communications Commission
Office of the Secretary

WASHINGTON, D.C. 20554

ORIGINAL

In the Matter of)
)
 Amendment of Part 90)
 of the Commission's Rules)
 to Reduce the Loading Criteria) RM- _____
 for Frequencies in the)
 806-821/851-865 MHz Bands)
 Allocated to the Industrial/Land)
 Transportation Service)

To: The Commission

**PETITION FOR RULE MAKING
 OF THE
 SPECIAL INDUSTRIAL RADIO SERVICE ASSOCIATION, INC.,
 THE TELEPHONE MAINTENANCE FREQUENCY ADVISORY COMMITTEE,
 AND THE COUNCIL OF INDEPENDENT COMMUNICATION SUPPLIERS**

The Special Industrial Radio Service Association, Inc. (SIRSA), the Telephone Maintenance Frequency Advisory Committee (TELFAC), and the Council of Independent Communication Suppliers (CICS) (collectively "the Joint Petitioners), pursuant to Section 1.401 of the Rules and Regulations of the Federal Communications Commission (Commission), hereby respectfully submit this Petition for Rule Making (Petition) that seeks amendment of Part 90 of the Commission's Rules and Regulations to promote utilization of the 800 MHz Industrial/Land Transportation (I/LT) channels in rural areas^{1/} by reducing the loading criteria currently required to obtain exclusive use of a channel. For the reasons set forth below, the Joint Petitioners request that the

^{1/} For purposes of this Petition, "rural area" is defined as being beyond a 70-mile radius of the geographic center of the urbanized areas listed in Table I of Section 90.635 of the Commission's Rules.

Commission initiate a rule making proceeding aimed at reducing: (1) the number of mobile stations that applicants for trunked 800 MHz I/LT systems in rural areas must propose in their application to secure the desired initial complement of channels; and (2) the number of mobile stations which licensees of conventional 800 MHz I/LT channels in rural areas are required to place into operation to secure exclusive use of the assigned channels.

I.

PRELIMINARY STATEMENT

1. The Special Industrial Radio Service Association, Inc., a non-profit association organized under the laws of the District of Columbia, is the Commission's certified frequency coordinator for the Special Industrial Radio Service and the Industrial Land Transportation 800/900 MHz frequency "pools." SIRSA also coordinates channels from the general access pool for those entities (a) eligible to become Industrial/Land Transportation licensees, (b) wishing to expand trunked systems, or (c) consolidating conventional systems into a trunked system. SIRSA coordinates in excess of 6,000 applications per year on behalf of applicants seeking Commission authority to operate radio stations on frequency assignments allocated to the Special Industrial Radio Service and the enumerated frequency "pools."

2. SIRSA enjoys the support of a membership that includes more than 14,000 licensed radio communications users and the following trade associations:

Alliance of Motion Picture and Television Producers
American Iron Ore Association
American Mining Congress
Associated Builders & Contractors, Inc.
Florida Citrus Processors Association
Florida Fruit & Vegetable Association
National Aggregates Association
National Agricultural Aviation Association
National Food Processors Association
National Propane Gas Association
National Ready-Mixed Concrete Association
National Utility Contractors Association
New England Fuel Institute
Petroleum Equipment Suppliers Association
United States Telephone Association

3. The Telephone Maintenance Frequency Advisory Committee (TELFAC) is an unincorporated association representing all licensees in the Telephone Maintenance Radio Service (TMRS). TELFAC is the Commission's certified frequency coordinator for the Telephone Maintenance Radio Service. TELFAC is governed by a council of licensee representatives composed of representatives from Ohio Bell Telephone Company, New Jersey Bell Telephone Company, Rock Hill Telephone Company, U.S. West Communications, Inc., United States Telephone Association, Spectrum Management Systems, Bell Communications Research, Inc., and Pacific Bell Telephone.

4. The Council of Independent Communication Suppliers is an association of entities engaged in serving the needs of private radio eligibles, particularly those located in small and rural communities throughout the United States. CICS' membership is open to Specialized Mobile Radio (SMR) operators, radio dealers, equipment suppliers, and consultants. CICS was formed to provide these entities a voice in the policy-making process governing use of the electromagnetic spectrum, especially spectrum allocated to the private land mobile radio services.

II.

PETITION FOR RULE MAKING

5. The Joint Petitioners believe the instant Petition for Rule Making identifies a further opportunity to make efficient use of the radio spectrum in a manner that will greatly benefit the public. Adoption of the proposals made in this Petition will provide an incentive for applicants/licensees to accelerate utilization of the 800 MHz band. Thus, the implementation of the proposals will contribute to "re-mining" the spectrum below 470 MHz as envisioned by the Commission in its recently adopted Notice of Inquiry^{2/} by encouraging

^{2/} Notice of Inquiry, PR Docket No. 91-170, Spectrum Efficiency in the Private Land Mobile Bands Below 470 MHz, 56 Fed. Reg. 31097 (July 9, 1991).

migration to the 800 MHz I/LT channels by licensees of existing systems authorized in the lower frequency bands.

6. In recent years it has become increasingly apparent that the 800 MHz band in rural areas is not heavily utilized. SIRSA has randomly selected several largely rural states to demonstrate the existing utilization of the land mobile bands below 470 MHz and in the 800 MHz band.^{3/} The statistics demonstrate that utilization decreases markedly as one reviews frequency assignments in higher bands. Considering that the 800 MHz band statistics include all of the Industrial and Land Transportation Radio Services, whereas the statistics for the bands below 470 MHz represents only the Special Industrial Radio Service, the Commission can well imagine the overall congestion in the bands below 470 MHz in the rural areas.

7. The Joint Petitioners submit that one reason that rural users are not upgrading their systems to the 800 MHz band is the substantial investment necessary to operate systems utilizing this spectrum^{4/} without a corresponding guarantee of a higher quality of

^{3/} See Appendix I attached hereto.

^{4/} At 800 MHz, the price of a single mobile unit is in the range of \$600 to \$800, when licensees purchase mobile units in relatively large quantities. The price of a single mobile unit at 450-512 MHz tends to be no more than \$300, on average.

service to warrant such investments. In this context, a superior quality of service can be assured at 800 MHz only if users can enjoy exclusive channel assignments. However, the majority of these users do not have a sufficiently large mobile requirement to warrant exclusive assignment of a channel in the 800 MHz band. Consequently, their upgraded 800 MHz system would continue to be operated in a shared environment -- negating one of the principle incentives to migrate to the higher spectrum.

8. The Joint Petitioners submit that a reduction in the loading standards for I/LT channels in the 800 MHz band in the rural areas would provide at least one compelling incentive (i.e. exclusive use) for users with less than 70 mobile units to migrate to this newer allocation. Therefore, the Joint Petitioners recommend that the Commission amend its rules to grant exclusive use of a conventional 800 MHz I/LT channel to an applicant/licensee having 35 mobiles or more in operation on a channel. Similarly, a licensee of a trunked 800 MHz I/LT system in a rural area should be permitted to expand the number of channels assigned to its system based on a showing that at least

35 mobiles per channel are in operation,^{5/} and obtain assignment of channels based on a loading criterion of 50 mobile units per channel.

9. In order to provide additional incentive, the Joint Petitioners further recommend that the Commission modify the definition of "mobile stations" for these rural I/LT systems. As discussed above, many rural licensees do not operate a large number of mobile units. However, such users do have other uses for their radio systems such as fixed operations (both point-to-point and point-to-multipoint) and paging. The Commission's rules currently permit licensees with exclusive use of channels at 800 MHz to use the system to transmit base/mobile messages, paging messages or fixed tone signalling, and permit more than a single emission to be utilized with the authorized bandwidth.^{6/} To provide greater flexibility of uses for the rural 800 MHz I/LT systems, the Joint Petitioners suggest that rural users be permitted to count the fixed units in their systems toward the loading standard to obtain exclusive use of a channel.

^{5/} The Joint Petitioners recognize that currently a licensee of a trunked 800 MHz system may obtain an additional five channels upon construction of the initially assigned channels. However, further expansion of the system requires that the initial channels be loaded to 70 mobile units per channel before additional channels will be granted. SIRSA recommends that this loading level be reduced to 35 mobile units.

^{6/} See 47 C.F.R. § 90.645(e) and (f).

10. For the most part, users in the rural areas do not have access to elevated antenna sites or particularly tall antenna towers. Consequently, the service areas of these rural 800 MHz systems are necessarily limited. In the process of coordinating these rural systems, SIRSA will employ the contour analyses in conformance with Section 90.621(c) of the Commission's rules, relying on the actual operating parameters of the existing 800 MHz stations and the proposed 800 MHz station. Accordingly, as the 800 MHz band becomes more heavily utilized, the smaller service areas will allow the band to accommodate an increased number of systems on each 800 MHz channel pair, as compared with assignments from lower frequency bands. Viewed from this perspective, lowering the number of mobiles required for exclusivity will help to achieve a proper counterbalance for the smaller service areas characteristic of 800 MHz systems in rural parts of the country.

III.

CONCLUSION

11. The current loading standards found in the Commission's rules for 800 MHz I/LT channels do not provide the proper incentive for smaller users of spectrum below 470 MHz to migrate to the 800 MHz allocation. These licensees are looking at increased costs to construct and operate 800 MHz systems without any corresponding benefit. Consequently, the Commission's reduction of its loading standards, and modification of the definition of units counted towards loading will

result in increased utilization of the 800 MHz I/LT spectrum in rural areas. Not only will the public interest be served by adoption of these amendments to the Commission's rules, but a reduction in the use of the 470 MHz band in these areas will assist the agency in its new efforts to restructure this spectrum.

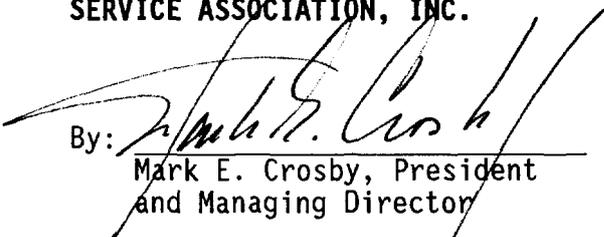
12. Accordingly, the Joint Petitioners request initiation of a new rule making proceeding that looks toward rule amendments that will permit: (1) I/LT trunked systems to be authorized in rural areas on a basis of loading criterion of 50 mobile transmitters per channel; (2) applicants for such rural trunked systems to certify that a minimum of 35 mobile transmitters will be placed in operation for each channel authorized within five years of the initial license grant; (3) a rural applicant eligible in the I/LT category to obtain channel exclusivity upon making a showing that a channel listed in Table 2A of Section 90.617(b) of the Commission's rules will be loaded to 35 mobile stations; and (4) the definition of "mobile stations" to include fixed transmitters when operated in rural systems.

WHEREFORE, THE PREMISES CONSIDERED, the Special Industrial Radio Service Association, Inc., the Telephone Maintenance Frequency Advisory Committee, and the Council of Independent Communication Suppliers respectfully urge the Federal Communications Commission to

grant this Petition for Rule Making and institute a rulemaking proceeding consistent with the proposals set forth in Appendix II of this Petition.

Respectfully submitted:

**THE SPECIAL INDUSTRIAL RADIO
SERVICE ASSOCIATION, INC.**

By: 
Mark E. Crosby, President
and Managing Director

**THE TELEPHONE MAINTENANCE
FREQUENCY ADVISORY COMMITTEE**

By:  / glb
Kam M. Falkenthal, Chair

**THE COUNCIL OF INDEPENDENT
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Dated: December 20, 1991

APPENDIX I

INDIVIDUAL LICENSED RADIO SYSTEMS

State/ Band	Wisc.	Nebraska	Iowa	S.Dakota
150 MHz (IS) *	813	1716	1735	787
450 MHz (IS) *	200	292	488	225
800 MHz (I/LT) **	3	4	4	3

*Statistics as of October 1991.

**Statistics as of November 1991.

APPENDIX II

IT IS PROPOSED THAT PART 90 OF THE COMMISSION'S RULES AND REGULATIONS BE AMENDED AS FOLLOWS:

1. Section 90.625 is amended by revising paragraph (a) and by adding paragraphs (b) and (e) to read as follows and by redesignating paragraphs (b) and (c) as paragraphs (c) and (d), respectively.

§ 90.625 Other Criteria to be Applied in Assigning Channels for Use in Conventional Systems of Communication

(a) Except as provided in paragraph (b), where an applicant shows that a channel will be loaded to 70 mobile stations, that channel will be made available for its exclusive use in the area in which it proposes to operate. If the showing made justifies the assignment of more than one channel to the applicant, additional frequencies will be authorized.

(b) In rural areas, where an applicant eligible in the Industrial/Land Transportation Category shows that a channel listed in Table 2A of Section 90.617(b) will be loaded to 35 mobile stations, that channel will be made available for its exclusive use in the area in which it proposes to operate. If the showing made justifies the assignment of more than one channel to the applicant, additional frequencies will be authorized.

* * * * *

(c) * * *

(d) * * *

(e) For purposes of this section, the definition of rural area is an area beyond a 70-mile radius of the geographic center of any urbanized area listed in Table I of Section 90.635. For purposes of paragraph (b) of this section, mobile stations shall include vehicular and portable mobile units, control stations, and fixed transmitters.

2. Section 90.627 is amended by revising paragraph (b)(2) to read as follows.

§ 90.627 Limitation on the Number of Frequency Pairs That May Be Assignable for Trunked Systems and on the Number of Trunked Systems

(a) * * *

(b) * * *

(1) * * *

(2) The licensee's existing trunked system is loaded to the prescribed mobile stations per channel.

(3) * * *

3. Section 90.629 is amended by revising paragraph (b) and adding paragraphs (c) and (e) to read as follows and redesignating paragraph (c) to paragraph (d).

§ 90.629 Extended Implementation Schedules

* * * * *

(b) Authorizations under this section are conditioned upon the licensee's compliance with the implementation schedule. If the licensee fails to meet the schedule, and all channels are assigned in the system's geographic area, authorization for trunked channels not loaded to 100 mobile stations cancels automatically. Except as provided in paragraph (c), conventional channels not loaded to 70 mobile units may be subject to shared use by the addition of other licensees. The licensee must submit a report to the Commission's Private Radio Bureau, Gettysburg, PA 17326 annually, showing the extent to which the authorized system has been implemented. A copy of the report must be submitted to the licensee's frequency advisory committee

(c) In rural areas, conventional channels (licensed to parties eligible in the Industrial/Land Transportation Category and listed in Table 2A of Section 90.617(b)) not loaded to 35 mobile stations may be subject to shared use by the addition of other licensees.

(d) * * *

(e) For purposes of this section, the definition of rural area is an area beyond a 70-mile radius of the geographic center of any urbanized area listed in Table I of Section 90.635. For purposes of paragraph (c) of this section, mobile stations shall include vehicular and portable mobile units, control stations, and fixed transmitters.

4. Section 90.631(a) is amended by revising paragraph (a) to read as follows, by redesignating existing paragraph (b) as paragraph (c) and revising the newly-designated paragraph (c) to read as follows, by adding new paragraphs (b) and (d) to read as follows, by redesignating existing paragraph (d) as paragraph (f) and revising the newly-designated paragraph (f) to read as follows, and by redesignating existing paragraphs (c), (e), (f), (g), and (h) as paragraphs (e), (g), (h), (i) and (j) respectively to read as follows:

§ 90.631 Trunked Systems Loading, Construction and Authorization Requirements

(a) Except as provided in paragraph (b), trunked systems will be authorized on the basis of a loading criterion of 100 mobile stations per channel. For the purposes of determining compliance with the trunked system loading requirements under this paragraph and paragraph (c), the term "mobile station" includes vehicular and portable mobiles and control stations.

(b) In rural areas, trunked systems authorized to applicants eligible in the Industrial/Land Transportation Category and authorized channels listed in Table 2A of Section 90.617(b) will be authorized on the basis of loading criterion of 50 mobile stations per channel. For purposes of determining compliance with the trunked system loading requirements under this paragraph and paragraph (d), the term "mobile station" includes vehicular and portable mobile units, control stations, and fixed transmitters. For purposes of paragraph (b) and (d) of this section, the definition of rural area is an area beyond a 70-mile radius of the geographic center of any urbanized area listed in Table I of Section 90.635.

(c) Except as provided in paragraph (d), * * * * *

(d) In rural areas, each applicant eligible in the Industrial/Land Transportation Category for a trunked system employing channels listed in Table 2A of Section 90.617(b) shall certify that a minimum of 35 mobiles for each channel authorized will be placed in operation within five years of the initial license grant.

(e) * * *

(f) In rural areas, a licensee of a trunked system may request to increase its system capacity by five more channels than it has constructed without meeting the loading requirements specified in paragraphs (c), (d), and (e) of this section. A rural area is defined for purposes of this paragraph as being beyond a 100-mile radius of the designated centers of the following urbanized areas, as well as those areas that have a waiting list. (Rural areas may be different for 800

and 900 MHz channels since the Commission maintains separate waiting lists for these frequency bands.) The identified urbanized areas are: New York, NY; Los Angeles, CA; Chicago, IL; Philadelphia, PA; San Francisco, CA; Detroit, MI; Boston, MA; Houston, TX; Washington, D.C.; Dallas-Ft. Worth, TX; Miami, FL; Cleveland, OH; St. Louis, MO; Atlanta, GA; Pittsburgh, PA; Baltimore, MD; Minneapolis-St. Paul, MN; Seattle, WA; San Diego, CA; and Tampa-St. Petersburg, FL. The coordinates for the centers of these areas are referenced in Section 90.635, except for the coordinates of Tampa-St. Petersburg are latitude 28°00'00" N., longitude 82°27'00" W. Where waiting lists determine whether an area is rural, the designated centers of those areas will be identified on the actual waiting lists released by the Commission. If a waiting list is later established in a rural area, licensees who have acquired additional channels pursuant to this paragraph will be subject to the automatic cancellation provisions in paragraph (c) of this section at the end of one year from the date the area first appears on a Commission waiting list, or at the end of their license term, whichever is longer.

* * * * *

5. Section 90.633 is amended by revising paragraphs (a), (b), and (e) and by adding paragraphs (h) and (i).

§ 90.633 Conventional Systems Loading Requirements

(a) Except as provided in paragraph (h), * * * * *

(b) Except as provided in paragraph (h), a channel will not be assigned to additional licensees when it is loaded to 70 mobile units. Except as provided in paragraph (h), * * * * *

(c) * * *

(d) * * *

(e) Except as provided in paragraph (h), * * * * *

(f) * * *

(g) * * *

(h) In rural areas, a channel assigned to a person eligible in the Industrial/Land Transportation Category and listed in Table 2A of Section 90.617(b) will not be assigned to additional licensees when it is loaded to 35 mobile units. Where a licensee in a rural area eligible in the Industrial/Land Transportation Category does not load a channel listed in Table 2A of Section 90.617(b) to 35 mobiles the channel will be available for assignment to other licensees. All authorizations for

conventional systems in rural areas are issued subject to this potential channels sharing condition.

(i) For purposes of this section, the definition of rural area is an area beyond a 70-mile radius of the geographic center of any urbanized area listed in Table I of Section 90.635. For purposes of paragraph (h) of this section, mobile stations shall include vehicular and portable mobile units, control stations, and fixed transmitters.